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Quadratic torsion-metric model consistent with the n-dimensional gravitational theories of einstein and weyl

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Abstract

We examine a gauge model with a Lagrangian, quadratic in the Riemann-Cardan curvature, without a separate Hubert Lagrangian. It is argued that torsions must be massive particles, the torsion field does not act on world fields, and the orthogonal components of the contorsion tensor must not vary with variations of the metric. It is shown that a new torsion-metric interaction arises in this case, which generates the gravitational theories of Einstein and Weyl.